

ADIS MISSION QUICK-START CHECKLIST

CAMERA

1. Battery Charged -- CHECK.
2. Monitor -- OPEN.
3. Power Switch -- ON.
4. Mode Dial: S -- CONFIRM.
5. Shutter Speed -- 1/1000 SECOND AND TAPED.
6. Information Edit Button <i> -- PRESS.
7. QUAL: BASIC and L.
8. WB: Direct Sunlight (Or Cloudy) -- CONFIRM.
9. ISO: 1000
10. [Release Mode] -- S (Single).
11. Focus Mode -- AF-A.
12. AF-Area Mode -- AUTO-AREA.
13. Metering -- MATRIX.
14. ADL (Active D-Lighting) -- A.
15. Bracketing Increment -- OFF.
16. Set Picture Control -- VI.
17. Flash Compensation -- 0.0.
18. Exposure Compensation -- +1.
19. Flash Mode Red Eye Reduction -- CONFIRM.
20. Current Time (UTC) -- CONFIRM.
21. Power Switch -- OFF.

(AT LEAST FIVE MINUTES BEFORE ENGINE START)

LENS

22. Power Switch -- ON.
23. Focus -- M/A.
24. VR Reduction Switch -- ON.
25. VR Mode Switch -- ACTIVE.
26. Zoom Lock Switch -- UNLOCKED.

GP-1 UNIT

27. Auto Meter-Off -- DISABLED.
28. GP-1 Indicator LED -- STEADY GREEN.

D5000 ADIS A-P-O-H

Advanced Digital Imagery System

AIRBORNE PHOTOGRAPHER'S OPERATING HANDBOOK

CIVIL AIR PATROL

AUGUST 2011

CONVENTIONS

1. ▼: DOWN; ▲: UP; ►: RIGHT; ◀: LEFT – –
Multi Selector
2. To Access Main Menus (Playback Menu, Shooting Menu, Custom Setting Menu, Setup Menu, Retouch Menu, or Recent Settings) at any time – – PRESS MENU BUTTON (ONCE AGAIN, IF ACCESS TO ALL LEFT COLUMN MENUS NOT PRESENTED.)
3. At any time the monitor battery display shows one-quarter power remaining, properly replace battery with fully charged battery.
4. Page numbers on drawings refer to pages in User's Manuals.
5. GP-1 LED Indicator Modes:
 - a. Blinking **RED** – – FIRST TIME: GP-1 Searching up to five minutes; DO NOT DO THIS INSIDE A BUILDING; NO SIGNAL. WILL WORK INSIDE A/C OR VEHICLE; **NO GPS DATA RECORDED**.
 - i. Upon reboot – – Less than one minute.
 - b. Blinking **GREEN** – – THREE SATELLITES DETECTED; GPS DATA RECORDED, BLINKING "GPS" APPEARS ON MONITOR.
 - c. Steady **GREEN** – – FOUR OR MORE SATELLITES DETECTED; MORE ACCURATE GPS DATA RECORDED; STEADY "GPS" WILL APPEAR ON MONITOR.
6. Mark memory cards and batteries with squadron number.
7. Import Photos into photo program; then import with Nikon Transfer 2. Use NIKON View NX 2 for GPS data summary.
8. Clearly mark all equipment with Squadron number.

SOFTWARE

NIKONUSA.COM (Importing [View NX 2](#) will import [Transfer 2](#))
Download/Install using "Download Nikon Software" link.
GOOGLE.COM (Import/Install Google Earth)

HANDBOOK INDEX

ADIS MISSION QUICK-START CHECKLIST. 16
AREA PHOTOGRAPH SCANNING, LARGE 50 MM. 7
AREA PHOTOGRAPH SCANNING, LARGE 100 MM. 8
AUTO-OFF TIMER, SETTING. 4

CAMERA BODY & INDEX (BACK). 11
CAMERA BODY & INDEX (FRONT). 10
CAMERA SETTINGS IN MONITOR. 5 - 6
CONNECTING THE GP-1 UNIT. 6
CONVENTIONS. 2

GP-1 LED INDICATOR MODES. 2
GP-1 UNIT AND INDEX. 13
GPS SETTINGS ON CAMERA. 6

IMAGE QUALITY. 5
IMAGE SIZE. 5
INTERVALOMETER AREA PHOTOGRAPHY. 7 - 9
ISO SENSITIVITY, SETTING. 5, 9

LENS AND INDEX. 12

MEMORY CARD, REFORMATTING. 4 - 5
MISSION PREP NIKON D5000 ADIS. 4 - 6
MISSION PREP THE NIKON 18-200 MM LENS. 7
MODE DIAL SETTING. 5
MONITOR CAMERA SETTINGS. 5 - 6.

PLAYBACK/MENUS AUTO-OFF TIMER, SETTING. 4

QUICK-START CHECKLIST, ADIS MISSION. 16

REFORMATTING A MEMORY CARD. 4 - 5

SETTING ISO SENSITIVITY. 5, 9
SHUTTER SPEED, SETTING. 5
SOFTWARE. 2

TABLE OF CONTENTS. 3

NOTES

Table of Contents

<u>Page</u>	
2	CONVENTIONS
3	TABLE OF CONTENTS
4	MISSION PREP NIKON D5000 ADIS
4	SETTING PLAYBACK/MENUS AUTO-OFF TIMER
4-5	REFORMATTING A MEMORY CARD
5	SETTING SHUTTER SPEED
5-6	CAMERA SETTINGS
6	GPS SETTINGS ON CAMERA
6	CONNECTING THE GP-1 UNIT
7	MISSION PREP THE NIKON 18-200 MM LENS
7	LARGE AREA SCANNING – 50 MM
8	LARGE AREA SCANNING – 100 MM
9	UNUSUAL PHOTOGRAPHY SITUATIONS
10	NIKON D5000 BODY & INDEX (FRONT VIEW)
11	NIKON D5000 BODY & INDEX (BACK VIEW)
12	NIKON 18 – 200 MM ZOOM LENS VIEW
13	NIKON GP-1 UNIT AND INDEX
14	NOTES
15	HANDBOOK INDEX
16	ADIS MISSION QUICK-START CHECKLIST

NIKON D5000 ADIS A-P-O-H

AIRBORNE-PHOTOGRAPHER'S-OPERATING-HANDBOOK

A-P-O-H

MISSION PREP NIKON D5000 ADIS

1. Camera Power -- OFF.
2. Three Batteries -- CHARGED.
3. One Battery -- ALIGNED & INSERTED.
4. Three Memory Cards -- REFORMATTED.

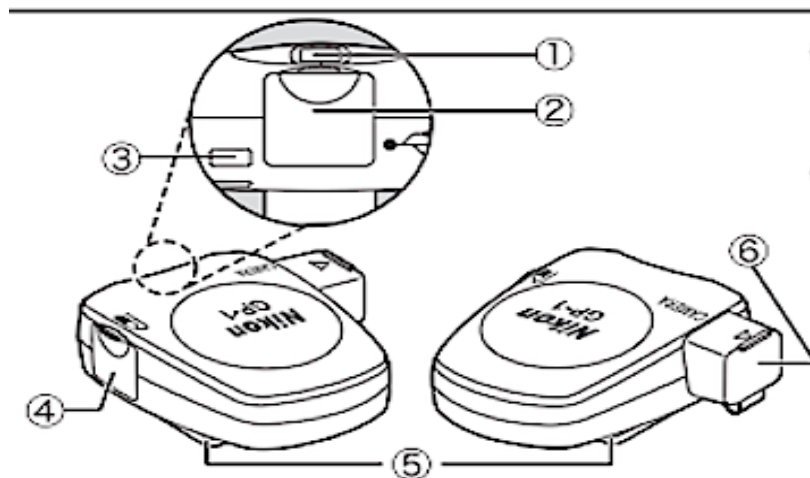
SETTING PLAYBACK/MENUS AUTO-OFF TIMER

5. Camera Power -- ON.
6. Menu Button -- PRESS.
7. Custom Setting Menu -- SCROLL/OK.
8. c Timers/AE Lock -- SCROLL/OK.
9. c2 Auto Off Timers -- SCROLL/OK.
10. Custom -- SCROLL/OK.
11. Playback/menus -- SCROLL/OK.
12. 10m 10Min. -- SCROLL/OK.
13. Auto meter-off -- SCROLL/OK.
14. 30m 30Min. -- SCROLL/OK.
15. Done -- SCROLL/OK.
16. Camera Power -- OFF.

REFORMATTING A MEMORY CARD

17. Camera Power -- OFF.
18. Memory Slot Cover -- OPEN.
19. Memory Card Write Switch -- WRITE.
20. Memory Card -- INSERT.
21. Memory Slot Cover -- CLOSE.
22. Camera Power -- ON.

4.

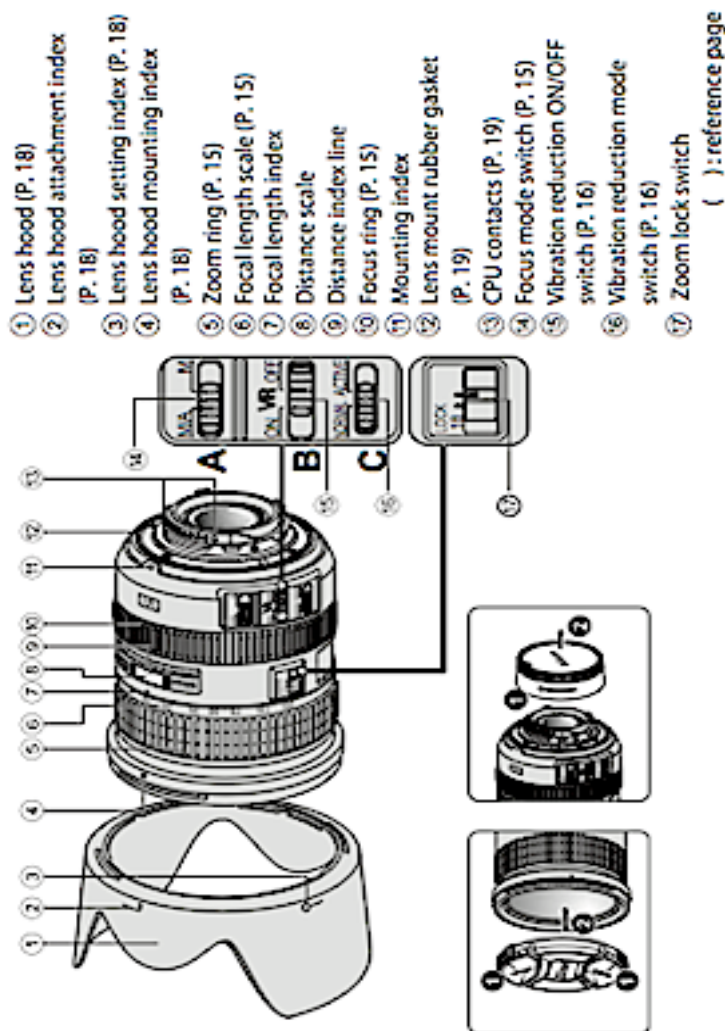


Parts of the GP-1

Refer to the illustration inside the front cover of this manual.

- | | |
|--|-------|
| ① LED | 11 |
| ② USB terminal..... | 18 |
| ③ Eyelet for strap (strap available separately; use cell phone strap or other similar strap) | |
| ④ Accessory terminal for optional MC-DC2 remote cord..... | 9 |
| ⑤ Mount..... | 9, 10 |
| ⑥ Connection terminal for GP1-CA10 or GP1-CA90..... | 7, 8 |

13.



12.

23. Menu -- PRESS.
24. Setup Menu -- SCROLL/OK.
25. Format Memory Card -- SCROLL/OK.
26. Yes -- SCROLL/HIGHLIGHT/OK.
27. Camera Power -- OFF.
28. One Memory Card -- ALIGN & INSERT.

SETTING SHUTTER SPEED

29. Monitor -- OPEN.
30. Camera Power -- ON.
31. Set Mode Dial (Shutter Priority) -- S.
32. Command Dial Set Shutter Speed -- 1/1000 SEC.
33. Mode and Command Dials -- TAPED.

CAMERA SETTINGS (THE INFORMATION DISPLAY)

34. Information Edit Button <i> -- PRESS.
35. Image Quality (QUAL) -- OK.
36. BASIC -- SCROLL/OK.
37. Image Size: L -- SCROLL/OK.
38. WB (White Balance) -- SCROLL/OK.
39. AUTO -- SCROLL/OK.
40. ISO -- SCROLL/OK.
41. 1000 -- SCROLL/OK.
42. Release Mode (Single) -- SCROLL/OK.
43. Focus Mode -- SCROLL/OK.
44. AF-A -- SCROLL/OK.
45. AF-Area Mode -- SCROLL/OK.
46. Auto-Area (Third From Top) -- SCROLL/OK.
47. Metering -- SCROLL/OK.
48. Matrix (Top) -- SCROLL/OK.
49. Active D-Lighting -- SCROLL/OK.
50. A -- SCROLL/OK.
51. AE bracketing -- SCROLL/OK.

5.

- 52. OFF -- SCROLL/OK.
- 53. Set Picture Control -- SCROLL/OK.
- 54. VI (Vivid) -- SCROLL/OK.
- 55. Flash compensation-- SCROLL/OK.
- 56. 0.0 -- SCROLL/OK.
- 57. Exposure compensation -- SCROLL/OK.
- 58. +1.0 -- SCROLL/OK.
- 59. Flash Mode -- SCROLL/OK.
- 60. Red Eye Reduction (Middle Symbol) -- SCROLL/OK.

GPS SETTINGS ON CAMERA

- 61. Menu Button -- PRESS.
- 62. Setup Menu -- SCROLL/OK.
- 63. GPS -- SCROLL/ OK.
- 64. Auto Meter Off-- OK.
- 65. Disable -- SCROLL/OK.

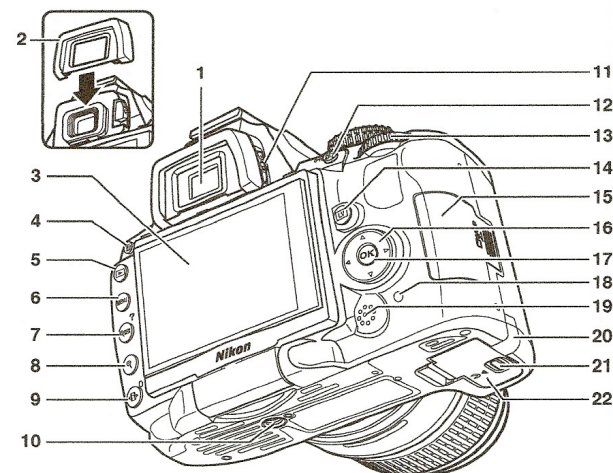
CONNECTING THE GPS UNIT

- 66. Camera Power -- OFF.
- 67. Camera Body Accessory Shoe Cover --
REMOVE & SECURE.
- 68. GP1-CA90 Cable To GP-1 Unit: Match Arrows UP;
Slightly Slimmer Of The Two Cable Ends (**DO NOT
FORCE**) -- ALIGN & INSTALL.
- 69. GP-1 GP-1 Unit to Camera Body Accessory Shoe (Top
Of Camera Body) -- INSTALL FROM BACK.
- 70. GP1-CA90 Cable To Camera Body Accessory Terminal
Top Recepticle; Match Two Arrows FORWARD; Slightly
Wider Of The Two Cable Ends (**DO NOT FORCE**)
Angle Up, Slide In -- ALIGN & INSTALL.

LEAVE CA-90 CABLE INSTALLED IN GP-1 UNIT WHEN SECURING THE CAMERA. REMOVE CABLE FROM CAMERA WHEN NOT IN EXTENDED USE. DO NOT HARSHLY BEND CABLES AT ITS ENDS. WIRES WILL EVENTUALLY BREAK.

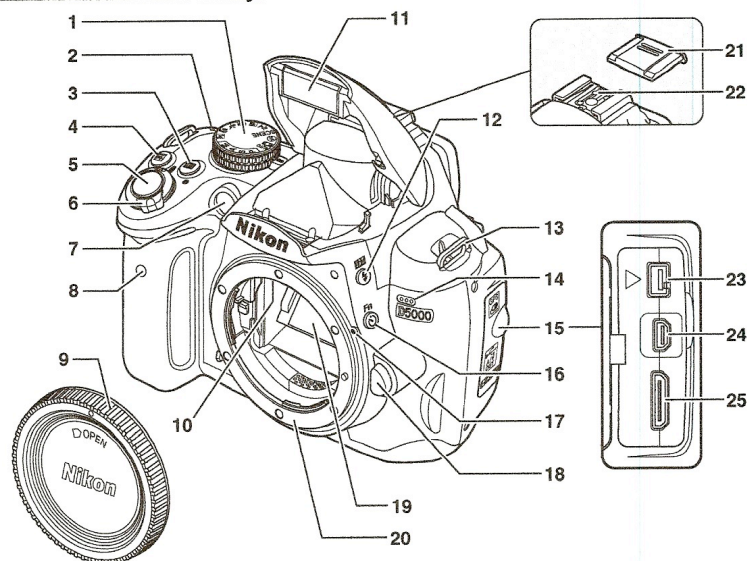
6.

The Camera Body (Continued)



1 Viewfinder eyepiece..... 25	7 (thumbnail/playback zoom out) button.....122	14 (live view) button
2 DK-24 rubber eyecup	? (help) button.....13	Taking photographs..... 41
3 Monitor	8 (playback zoom in) button124	Shooting movies..... 49
Viewing settings8	9 (information edit) button 9	15 Memory card slot cover..... 22
Live view 41	Two-button reset button.....78	16 Multi selector 14
Viewing pictures 39	10 Tripod socket	17 (OK) button..... 14
Full-frame playback..... 116	11 Diopter adjustment control.....25	18 Memory card access lamp22, 32
4 (delete) button	12 (AE-L/AF-L) button 59, 164	19 Speaker
Deleting pictures 40	(protect) button125	20 Power connector cover for optional power connector204
Deleting pictures during playback..... 126	13 Command dial.....10	21 Battery-chamber cover latch 17
5 (playback) button .. 39, 116		22 Battery-chamber cover..... 17
6 MENU (menu) button 13, 145		

The Camera Body



1 Mode dial5	8 Infrared receiver68	18 Lens release button.....19
2 Focal plane mark (☞).....61	9 Body cap42, 208	19 Mirror42, 208
3 (information) button.....8	10 CPU contacts61	20 Lens mount61
4 (two-button reset button).....78	11 Built-in flash.....70	21 Accessory shoe cover.....198
5 (exposure compensation) button90	12 (flash mode) button70	22 Accessory shoe (for optional flash unit).....198
6 (aperture) button84	13 (flash compensation) button.....93	23 Accessory terminal203
7 Flash compensation button93	14 Eyelet for camera strap51	24 USB connector
8 Shutter-release button32	15 Microphone135	Connecting to a computer
9 Power switch.....28	16 Connector cover136	Connecting to a printer..136
10 AF-assist illuminator55	17 (self-timer) button69	A/V connector.....132
11 Self-timer lamp68	18 (function) button163	25 HDMI mini-pin connector
12 Red-eye reduction lamp72	19 Mounting index18133

MISSION PREP THE NIKON 18-200 MM LENS

71. Camera Power -- ON.
72. VR Reduction Switch -- ON.
73. Vibration Reduction Mode Switch -- ACTIVE.
74. Lens Cap -- REMOVE.

BEFORE SHUTTING CAMERA OFF AT END OF SORTIE, TURN VR REDUCTION SWITCH OFF AND VIBRATION REDUCTION MODE SWITCH TO NORMAL!

LARGE AREA SCANNING – 50 MM

Setting Interval Timer (Focal Length: 50 MM / 90 Knots / 1000 Feet AGL)

1. Zoom Lock Switch -- OFF.
2. Zoom Focal Length 50mm -- SET & TAPED.
3. Camera -- ON.
4. Set Mode Dial (Shutter Priority) -- S.
5. Command Dial Set Shutter Speed -- 1/1000 SEC.
6. Mode and Command Dial -- TAPED.
7. Menu Button -- PRESS.
8. Shooting Menu -- SCROLL/OK.
9. Interval Timer Shooting -- SCROLL/OK.
10. Choose Start Time -- NOW ►.
11. Interval Hours: 00 -- ►.
12. Interval Minutes: 00 -- ►.
13. Interval Seconds: 04 -- ►.
14. Number Of Intervals (N.O.I.) -- 100 ►▲.
15. On -- SCROLL/OK. (Begin 20 seconds before actual target, Intervalometer takes three seconds to begin.)
16. To Set Same Interval Or Interrupt -- POWER SWITCH: OFF, THEN ON.
17. If Restart After Finish Or Interrupt -- PERFORM STEPS 7 THROUGH 15. (SETTINGS HAVE BEEN SAVED.)

LARGE AREA SCANNING – 100 MM

Setting Interval Timer (Focal Length: 100 MM / 90 Knots / 1000 Feet AGL

1. Zoom Lock Switch – – OFF.
2. Zoom Focal Length 100mm – – SET & TAPED.
3. Camera – – ON.
4. Set Mode Dial (Shutter Priority) – – S.
5. Command Dial Set Shutter Speed – – 1/1000 SEC.
6. Mode and Command Dial – – TAPED.
7. Menu Button – – PRESS.
8. Shooting Menu – – SCROLL/OK.
9. Interval Timer Shooting – – SCROLL/OK.
10. Choose Start Time – – NOW/ ►.
11. Interval Hours: 00 – – ►.
12. Interval Minutes: 00 – – ►.
13. Interval Seconds: 02 – – ►.
14. Number Of Intervals (N.O.I.) – – 100 ►▲.
15. On – – SCROLL/OK. (Begin 20 seconds before actual target, Intervalometer takes three seconds to begin.)
16. Set Interval Or Interrupt – – POWER SWITCH OFF,
THEN ON.
17. If Restart After Finish Or Interrupt – – PERFORM
STEPS 7 THROUGH 15. (SETTINGS HAVE BEEN
SAVED.)

8.

UNUSUAL PHOTOGRAPHY SITUATIONS

A) Large Area Photography With Defined Distances To Record

In the event a customer wants a large area intervalometer photo reconnaissance over a specific distance in nautical miles, the following calculations are performed to set the number of intervals (N.O.I.) with around 25% overlap.

Refer to Page 7, Step 14 in the APOH and insert the following calculated number instead of 50.

CALCULATIONS @ 50mm Focal Length (Wider Area):

1. Number of nm x 10.333 = N.O.I.
2. Add 10 to N.O.I. – – SET ►▲.
3. Continue with Step 15.

(Ten additional pictures are added to assure that the beginning of the area surveillance is covered by activating the intervalometer (OK) 20 seconds before the actual beginning of the event in surveillance.)

Refer to Page 8, Step 14 in the APOH and insert the following calculated number instead of 50.

CALCULATIONS @ 100mm Focal Length (More Detail):

1. Number of nm x 18.586 = N.O.I.
2. Add 20 to N.O.I. – – SET ►▲.
3. Continue with Step 15.

(Twenty additional pictures are added to assure that the beginning of the area surveillance is covered by activating the intervalometer (OK) 20 seconds before the actual beginning of the event in surveillance.)

B) In the event the sortie encounters moderate turbulence and does not abort the mission, ISO(Page 5, Steps 40-41) set to 2000 and Shutter Speed to 1/2000 (Page 5, Steps 40-41).

C) In the event the sortie occurs during low light conditions, ISO is set to 2000 and Shutter Speed to 1/1000.(Page 5, Steps 40-41).

9.